

Abstract

An adapter for use with a conventional POS card reader to interface with PDA's, Wireless Phones, and other Handheld devices, through Infrared or RF media, such that signals received from the devices can be converted to conventional magnetic stripe and / or smart card format, as required by the conventional POS card readers. The adapter includes a housing, including at least a reader-insertable portion capable of being inserted in the card reader, a receive circuit in the housing, a processor in the housing connected to the receive circuit; and a point of sale interface in the reader insertable portion of the housing and connected to the processor. The housing may be approximately the size of a conventional credit card and may be fully reader-insertable.

The point of sale interface comprises a magnetic stripe emulator, a smart card emulator, or both. The magnetic stripe emulator may comprise at least one electromagnet. Two electromagnets may be used to emulate two tracks of a conventional magnetic card stripe. The receive circuit may comprise an infra-red receiver, a radio-frequency receiver, or other suitable circuit. The adapter may further include a transmit circuit, wherein the receive circuit and the transmit circuit include a transceiver. The adapter may further include a data buffer connected to the processor, the data buffer configured to purge data after a predetermined period of time or after a predetermined number of data transfer operations.